

Title (en)  
Optoelectronic measuring device

Title (de)  
Optoelektronisches Messgerät

Title (fr)  
Dispositif de mesure opto-électronique

Publication  
**EP 2163860 B2 20140305 (EN)**

Application  
**EP 08380263 A 20080910**

Priority  
EP 08380263 A 20080910

Abstract (en)  
[origin: EP2163860A1] Optoelectronic measuring device which comprises a graduated scale (2) and a readhead that may move in relation to the graduated scale (2) in a direction of movement (X). The graduated scale (2) comprises periodic marks (20) distributed in the direction of movement (X) with a determined period (P1) and at least one reference code with two symmetrical reference groups, each reference group comprising at least one reference mark (22a) integrated between the periodic marks (20). The readhead comprises a reticule with a stripe code for the reference code, said stripe code comprising two symmetrical stripe groups and each stripe groups comprising at least one transparent stripe for each reference mark (22a) of each reference group.

IPC 8 full level  
**G01D 5/347** (2006.01)

CPC (source: EP)  
**G01D 5/34776** (2013.01)

Citation (opposition)  
Opponent :

- US 3985448 A 19761012 - WIKLUND KLAS RUDOLF, et al
- US 4717824 A 19880105 - SAKAMOTO HITOSHI [JP], et al
- EP 1577645 A1 20050921 - CANON KK [JP]
- EP 0513427 A1 19921119 - HEIDENHAIN GMBH DR JOHANNES [DE]
- EP 1002219 B1 20021204 - HEIDENHAIN GMBH DR JOHANNES [DE]

Cited by  
JP2019144243A

Designated contracting state (EPC)  
DE ES

DOCDB simple family (publication)  
**EP 2163860 A1 20100317; EP 2163860 B1 20101201; EP 2163860 B2 20140305**; DE 602008003809 D1 20110113; ES 2353355 T3 20110301; ES 2353355 T5 20140331

DOCDB simple family (application)  
**EP 08380263 A 20080910**; DE 602008003809 T 20080910; ES 08380263 T 20080910